UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MICHAEL COHEN

Appeal 2006-3264
Application 10/685,377
Technology Center 3600

Decided: March 23, 2007

Before TERRY J. OWENS, STUART S. LEVY, and ROBERT E. NAPPI, *Administrative Patent Judges*.

OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

The Appellant appeals from a rejection of claims 1-14, which are all of the pending claims.

THE INVENTION

The Appellant claims a modular armored vehicle system. Claim 1 is illustrative:

1. A modular armored vehicle system comprising an armored combat vehicle chassis having a plurality of openings and a plurality of composite armor plates for absorbing and dissipating kinetic energy from high velocity, armor-piercing projectiles, each of said plates being adapted for attachment to said chassis and sized to cover at least one of said openings wherein each of said plates comprises a single layer of bodies which are directly bound and retained in plate form by a solidified material wherein a majority of each of said bodies is in direct contact with at least four adjacent bodies, wherein the solidified material and the plate are elastic and wherein said bodies have a specific gravity of at least 2.4 and are made of a ceramic material.

THE REFERENCES

Ferguson	US 4,131,053	Dec. 26, 1978
Middione	US 6,082,240	Jul. 4, 2000
Cohen (Cohen '781)	US 6,289,781 B1	Sep. 18, 2001
Cohen (Cohen '075)	US 6,575,075 B2	Jun. 10, 2003
Slater	GB 2 277 141 A	Oct. 19, 1994

THE REJECTIONS

The claims stand rejected under 35 U.S.C. § 103 as follows: claims 1-9 over Cohen '781 in view of Middione; claims 10, 13, and 14 over Cohen '781 in view of Middione and Cohen '075; and claims 10-12 over Cohen '781 in view of Middione and either Ferguson or Slator.

OPINION

We affirm the aforementioned rejections.

The Appellant separately argues only the broadest independent claim, i.e., claim 1, and its dependent claim 5 (Br. 14-26). Although additional references are applied to dependent claims 10-13 and independent claim 14, the Appellant does not provide a substantive argument as to the separate

patentability of those claims. We therefore limit our discussion to claims 1 and 5. See 37 C.F.R. § 41.37(c)(1)(vii) (2004).

Claim 1

Cohen '781 discloses "an armored plate which may be worn to provide the user with lightweight ballistic protection" (Cohen '781, col. 1, ll. 11-13) and "armored plates for providing ballistic protection for light and heavy mobile equipment and vehicles against high-speed projectiles or fragments" (Cohen '781, col. 1, ll. 13-16). Each plate comprises

> a single internal layer of pellets which are directly bound and retained in plate form by a solidified material such that the pellets are bound in a plurality of adjacent rows, characterized in that the pellets have a specific gravity of at least 2 and are made of a material selected from the group consisting of glass, sintered refractory material, ceramic material which does not contain aluminum oxide and ceramic material having an aluminum oxide content of not more than 80%, the majority of the pellets each having at least one axis of at least 3 mm length and are bound by said solidified material in said single internal layer of adjacent rows such that each of a majority of said pellets is in direct contact with at least 4 adjacent pellets in the same layer to provide mutual lateral confinement therebetween, said pellets each have a substantially regular geometric form and said solidified material and said plate are elastic. [Cohen '781, col. 3, l. 66 – col. 4, l. 15.]
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> The solidified material can be any suitable material which retains elasticity upon hardening at the thickness used, such as aluminum, epoxy, a thermoplastic polymer such as polycarbonate, or a thermoset plastic, thereby allowing curvature of the plate without cracking to match curved surfaces to be protected, including body surfaces, as well as elastic reaction of the plate to incoming projectiles to allow increased contact force between adjacent pellets at the point of impact. [Cohen '781, col. 4, ll. 41-49.]

The height and diameter of the pellets depend upon the size of the projectiles whose penetration is to be prevented; the longer the projectile, the greater the height and diameter of the pellets (Cohen '781, col. 6, ll. 43-59).

Middione discloses clamps for attaching armor panels to vehicle hulls (Middione, col. 1, ll. 42-52).

The Appellant argues that Cohen does not suggest that the armored plate may be attached to an armored vehicle chassis to cover an opening therein (Br. 17; Reply Br. 2-3). A chassis for a manned, armored vehicle necessarily has openings for people and materials to get in and out of the vehicle. As with other parts of the vehicle, the opening must be protected by an armored panel against projectiles. The armored panel must be sized to cover the opening because if the armored panel is smaller than the opening, the portion of the opening's cover not protected by the armored panel will be exposed to a strike by a projectile. As for the argument that the Cohen '781 panel is not adapted for attachment to a chassis, the Appellant's claims do not require direct attachment of the armored plate to the chassis.[1] Thus, the Appellant's claims encompass attaching the Cohen '781 armored panel to any surface, such as a door cover, that is attached to the chassis.

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[1] During patent prosecution, claims are to be given their broadest reasonable interpretation consistent with the Specification, as the claim language would have been read by one of ordinary skill in the art in view of the specification. *See In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989); *In re Sneed*, 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983). The Appellant's Specification does not limit "attachment" to direct attachment. The Specification merely shows holes (14, fig. 2) for "securing said panel to an opening in said vehicle chassis" (p. 11). The direct attachment shown in the Appellant's figures 3 and 4 added by amendment (filed Nov. 11, 2004) clearly is not supported by the Appellant's original disclosure.

For the above reasons we are not convinced of reversible error in the Examiner's rejection of claim 1. Accordingly, we affirm the rejection of that claim and claims 2-4 and 6-14 that stand or fall therewith.

Claim 5

Claim 5 depends from claim 1 and requires "a plurality of interchangeable plates, a first plurality of said plates having pellets sized to absorb and dissipate kinetic energy from high velocity armor-piercing 12.7 mm – 14.5 mm projectiles, a second plurality of said plates having pellets sized to absorb and dissipate kinetic energy from high velocity armor-piercing 14.5 – 30 mm projectiles, and a third plurality of said plates having pellets sized to absorb and dissipate kinetic energy from high velocity armor-piercing projectiles over 30 mm."

The Appellant argues that "[s]uch interchangeable armor plates is not disclosed or hinted at in the references" (Br. 21). Cohen '781 discloses that 9.5 mm to 30 mm projectiles can be dealt with by using panels having pellets with varied heights and diameters, and by using multilayered panels (Cohen '781, col. 6, ll. 43-59). That disclosure would have fairly suggested, to one of ordinary skill in the art, making interchangeable plates that have the same size for protecting a particular armored vehicle part of a given size, such as a door, but have different pellet heights and diameters, such that a choice can be made of one of those plates, or multiple plates in multilayer form, to provide the level of protection needed for a particular projectile size.

We therefore affirm the rejection of claim 5.

Other Matter

The Examiner objected to the Appellant's drawings as not showing every feature of the claimed invention (office action mailed Aug. 20, 2004). In response the appellant added figures 3 and 4 and a discussion of those figures in the Specification (Amendment filed Nov. 11, 2004). The Examiner objected to the drawings and the Specification under 35 U.S.C. § 132 as introducing new matter into the disclosure (Final Rejection mailed Dec. 17, 2004). The Appellant argues that "this issue of new matter affects the patentability of the claims and is therefore properly before this Honorable Board" (Br. 5).

As stated in *Manual of Patent Examining Procedure* § 608.04(c)(8th ed., rev. 3, Aug. 2005):

> Where the new matter is confined to amendments to the specification, review of the examiner's requirement for cancellation is by way of petition. But where the alleged new matter is introduced into or affects the claims, thus necessitating their rejection on this ground, the question becomes an appealable one, and should not be considered on petition even though that new matter has been introduced into the specification also.

The claims on appeal are the original claims. The description of figures 3 and 4 added to the Specification by amendment does affect the scope of any claim term by, for example, defining a term, but, rather, merely describes an embodiment. That description, therefore, does not affect the scope of the claims. Hence, the Examiner was correct in not rejecting the claims under 35 U.S.C. § 112, first paragraph. Because there is no new matter rejection of the claims, the corresponding objection to the

Specification is not before us on appeal. That objection and the Examiner's refusal to enter figures 3 and 4 are petitionable issues.

DECISION

The rejections under 35 U.S.C. § 103 of claims 1-9 over Cohen '781 in view of Middione, claims 10, 13 and 14 over Cohen '781 in view of Middione and Cohen '075, and claims 10-12 over Cohen '781 in view of Middione and either Ferguson or Slator, are affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a) (2006).

AFFIRMED

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